IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. 10/039,481
Confirmation No... 1737
Filing Date .... January 8, 2002
Inventor...Yaacov Almog
Group Art Unit.. 1795
Examiner ....Rodee, Christopher D
Patent Docket No...600204464-9
Title:.. Toner Particles With Modified Chargeability

BRIEF OF APPELLANT

To: Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

From: James E. Lake (Tel. 509-624-4276; Fax 509-838-3424)
Wells St. John P.S.
601 W. First Avenue, Suite 1300
Spokane, WA 99201-3828

Appellant appeals from the May 22, 2009 Office Action (hereinafter "Office Action") finally rejecting claims 47-58, 63, and 65-74. A fee transmittal is included in the amount of $540.00 in payment of the fees required under 37 C.F.R. § 41.20(b)(2).

TABLE OF CONTENTS

I. REAL PARTY IN INTEREST

The real party in interest of the application is Hewlett-Packard Indigo B.V. as evidenced by the documents recorded at reel 014275, frame 0821 on July 17, 2003 in the Assignment Division of the Patent and Trademark Office.

II. RELATED APPEALS AND INTERFERENCES

Appellant, Appellant's undersigned legal representative, and the assignee of the pending application are not aware of any appeals, interferences, or judicial proceedings which may be related to, directly affect, or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 47, 51-58, 63, and 65-74 are pending in the application with claims 1-46, 48-50, 59-62, and 64 previously cancelled. All pending claims stand finally rejected and are being appealed.

IV. STATUS OF AMENDMENTS

Appellant did not file any amendment subsequent to final rejection.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

A concise explanation of the subject matter defined in each of the independent and dependent claims involved in the appeal follows with reference to the original specification.

Claim 47 sets forth an electrostatic imaging process including forming a charged latent electrostatic image on a photo conductive surface and applying toner particles from a liquid toner, thereby forming an image. (P. 6, ll. 4-10). The liquid toner contains an insulating non-polar carrier liquid, at least one charge director, and dispersed toner particles. (P. 4, ll. 30-35). The particles have a core material which is unchargeable by the at least one charge director or which is weakly chargeable by the at least one charge director. (P. 2, ll. 3-9; p. 4, l. 35 to p. 5, l. 1; p. 6, l. 32 to p. 7, l. 8). Also, the particles have a coating of at least one ionomer component in an amount effective to impart an enhanced chargeability (p. 5, ll. 2-4), wherein the coating of the at least one ionomer increases the chargeability of the toner particles to greater than 7 pmho/cm (p. 14, Table 5, Run 1; see pp. 12-14, Tables 3-5).

Claim 63 sets forth liquid toners for an electrostatic imaging including at least first and second liquid toners of first and second colors, wherein the first and the second liquid toners are configured with pigmented polymers having differently colored pigments. (P. 7, ll. 24-28). Each of the first and the second liquid toners contains an insulating non-polar carrier liquid, at least one charge director, and dispersed toner particles. (P. 4, ll. 30-35). The particles have a core material which is unchargeable by the at least one charge director or which is weakly chargeable by the at least one charge director. (P. 2, ll. 3-9; p. 4, l. 35 to p. 5, l. 1). Also, the particles have a coating of at least one ionomer component in an amount effective to impart an enhanced chargeability (p. 5, ll. 2-4), wherein the coating of the at least

one ionomer increases the chargeability of the toner particles to greater than 7 pmho/cm (p. 14, Table 5, Run 1; see pp. 12-14, Tables 3-5; see Fig. 3). The coating of the at least one ionomer added to toner particles in each of the first and the second liquid toners is sufficient to result in a same chargeability for toner particles within the first and the second liquid toners. (P. 7, ll. 28-30).

Claim 67 depends from claim 63 and sets forth that the coating of the at least one ionomer increases the chargeability of the toner particles by at least 15 pmho/cm. (P. 13, Table 4, CAP CD; see pp. 12-14, Tables 3-5; see Fig. 3).

Claim 68 depends from claim 63 and sets forth that the coating of the at least one ionomer increases the chargeability of the toner particles by 15 to 161 pmho/cm. (P. 13, Table 4, CAP CD; p. 12, Table 3, Run 4; see pp. 12-14, Tables 3-5; see Fig. 3).

Claim 70 depends from claim 47 and sets forth that the coating of the at least one ionomer increases the chargeability of the toner particles by at least 15 pmho/cm. (P. 13, Table 4, CAP CD; see pp. 12-14, Tables 3-5; see Fig. 3).

Claim 71 depends from claim 47 and sets forth that the coating of the at least one ionomer increases the chargeability of the toner particles by 15 to 161 pmho/cm. (P. 13, Table 4, CAP CD; p. 12, Table 3, Run 4; see pp. 12-14, Tables 3-5; see Fig. 3).

Claim 72 depends from claim 47 and sets forth that the coating of the at least one ionomer increases the chargeability of the toner particles by 23 to 161 pmho/cm. (P. 13, Table 4, BBP CD; p. 12, Table 3, Run 4; see pp. 12-14, Tables 3-5; see Fig. 3).

Claim 73 depends from claim 69 and sets forth that the coating of the at least one ionomer increases the chargeability of the toner particles by 23 to 96 pmho/cm. (P. 13, Table 4, BBP CD; p. 14, Table 5, Run 3; see pp. 12-14, Tables 3-5; see Fig. 3).

Claim 74 depends from claim 47 and sets forth that the coating of the at least one ionomer increases the chargeability of the toner particles by 79 to 161 pmho/cm. (P. 14, Table 5, Run 2; p. 12, Table 3, Run 4; see pp. 12-14, Tables 3-5; see Fig. 3).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL.

Whether claims 47, 51-58, 63, and 65-74 comply with the written description requirement under 35 U.S.C. § 112, first paragraph.

VII. ARGUMENT

A. Rejection of claim 47, 51-58, 63, 65, 66, and 69 under 35 U.S.C. § 112.

Pages 2-3 of the Office Action explain the Office's reasoning for the allegation that the claims fail to comply with the written description requirement. All of the clearly identifiable reasons for the rejection are addressed below.

1. The specification supports an increase in chargeability with a lower limit of 7 pmho/cm.

The subject matter of claim 47 is described above. Among other features, claim 47 sets forth that "the coating of the at least one ionomer

increases the chargeability of the toner particles to greater than 7 pmho/cm." The Office Action alleges that the specification does not describe "an increase in conductivity of greater than 7 pmho/cm as currently claimed" and that "[t]he value of greater than 7 pmho/cm as the increase in charge is not described."

In the present specification, with no ionomer, Run 1 of Table 3 shows a particle conductivity of 3, BBP and CAP charge directors of Table 4 yield particle conductivities of 1 and 2, respectively, and Run 1 of Table 5 shows a particle conductivity of 7 pmho/cm. That is, the particle conductivities of 3, 1, 2, and 7 pmho/cm in the examples with no ionomer are all within the range of 7 or less. Page 2, lines 3-9 and page 6, line 38 to page 7, line 8 of the specification describe embodiments which relate to enhancing the chargeability of weakly chargeable liquid toner particles.

Tables 3-5 all show the use of ionomers enhancing the chargeability of toner particles. Table 5 shows that 10% ionomer increases by 79 pmho/cm the conductivity of the weakly chargeable particles exhibiting 7 pmho/cm and that increasing the amount of ionomer to 20% increases the conductivity by 96 pmho/com. Table 3 also shows that increasing ionomer content produces increasing levels of particle conductivity. Figures 1-3 discussed on page 10, line 34 to page 11, line 2 of the specification further show that increasing ionomer content produces increasing levels of particle conductivity. In fact, using the data shown in Figures 1-3 (as well as Tables 3 and 5) those of ordinary skill may easily interpolate between data points or extrapolate from the last data point to determine an amount of ionomer sufficient to produce a

desired particle conductivity greater than the conductivity shown for 0% ionomer.

The specification supports weakly chargeable toner particles having particle conductivities of 7 or less pmho/cm. The specification also supports a general teaching that increasing ionomer content produces increasing levels of particle conductivity for a variety of ionomer, particle, and charge director compositions, including for the specific composition that produces a particle conductivity of 7 pmho/cm. The claimed invention is not limited to 20%, 10%, or even 5% ionomer. Amounts less than 5%, greater than 20%, and between such values are clearly contemplated.

Appellant asserts that those of ordinary skill would view the specification as providing a written description of the claim 47 process. In such process, a selected amount of ionomer coating imparts a conductivity level greater than the weakly chargeable particle's conductivity without ionomer of 7 pmho/cm, as well as greater than the 3, 1, and 2 pmho/cm in Tables 3-5. Actual amounts of ionomer for specific compositions may be estimated merely by interpolating the provided data. Consequently, the specification supports increasing the chargeability of toner particles to greater than 7 pmho/cm.

At least for such reasons, Appellant requests withdrawal of the rejection.

2. No requirement exists for the specification to disclose a specific value of just greater than 7 pmho/cm.

The Office Action alleges that “[a] specific value of just greater than 7 pmho/cm is not disclosed.” As may be appreciated from the discussion above, the specification supports a general teaching that increasing ionomer content produces increasing levels of particle conductivity, including for the specific composition that produces a particle conductivity of 7 pmho/cm. Appellant establishes above that the specification includes a written description of enhancing chargeability to impart a desired conductivity level greater than a weakly chargeable particle's conductivity without ionomer. Also, Appellant establishes above that the specification includes a written description of weakly chargeable particles having conductivities of 7 or less pmho/cm.

It follows that the specification includes a written description of imparting any desired conductivity level between 3 and 115 pmho/cm (Table 3), between 1 and 24 pmho/cm (Table 4), between 2 and 17 pmho/cm (Table 4), and between 7 and 86 pmho/cm (Table 5). Such ranges merely represent a data point for 0% ionomer and 5% (Tables 3 and 4) or 10% (Table 5) ionomer. Consequently, no requirement exists for the specification to disclose a specific value of just greater than 7 pmho/cm. Appellant asserts that those of ordinary skill would view the specification as providing a written description of imparting a particle conductivity greater than 7 pmho/cm.

At least for such reasons, Appellant requests withdrawal of the rejection.

3. The specification supports an increase in chargeability with an "unbounded upper range."

The Office Action alleges that "an unbounded upper range for the charge increase is also not disclosed." As may be appreciated from the discussion above, the specification supports a general teaching that increasing ionomer content produces increasing levels of particle conductivity. Although Tables 3 and 5 do not include data points for greater than 20% ionomer, those of ordinary skill would not find this to represent a maximum particle conductivity. As shown at least in Figure 3 and as represented by the additional data of the examples, those of ordinary skill would view the specification as providing a written description of higher conductivity levels for greater than 20% ionomer.

Additionally, Appellant notes that Tables 3-5 describe particle conductivities of 17, 24, 86, 103, 115, 162, and 164, all of which are within the range of greater than 7 pmho/cm.

Further, it is theoretically conceivable that an upper boundary for particle conductivity might exist where an incrementally greater amount of ionomer exhibits a diminishing return and more ionomer fails to produce the anticipated increase. However, such upper boundary would apparently vary depending on the several factors described in the specification and known in the art that influence conductivity. For example, the upper boundary for one combination of ionomer, particle, and charge director composition may differ significantly from the upper boundary for another combination of compositions. The data of Tables 3-5 clearly support such a conclusion.

The embodiments described in the specification are not limited to any particular upper boundary for particle conductivity. The Office's attempt to limit maximum particle conductivity deprives Appellant of invented subject matter described in the specification. No requirement exists for Appellant to identify all possible combinations of ionomer, particle, charge director, etc. compositions and determine which has the highest theoretical upper boundary for particle conductivity merely to state a bounded upper range in the claims. For all practical purposes, the specification provides a written description of an unbounded upper range for particle conductivity. Appellant asserts that those of ordinary skill would likewise view the specification as providing a written description of a particle conductivity greater than 7 pmho/cm.

At least for such reasons, Appellant requests withdrawal of the rejection.

4. The specification supports an increase in chargeability to greater than 7 pmho/cm for unchargeable toner particles.

The Office Action alleges that "none of the changes in charges were relative to an unchargeable toner particle." Appellant establishes above that the specification includes a written description of weakly chargeable particles having conductivities of 7 or less pmho/cm in Tables 3-5. An unchargeable toner particle has a conductivity of 0 pmho/cm, which is within the described range of conductivities of 7 or less pmho/cm. Page 2, lines 3-9 of the specification describes imparting chargeability to ordinarily unchargeable

liquid toner particles. Pages 4-5 of the specification additionally describe various embodiments involving imparting enhanced chargeability to ordinarily unchargeable particles. Page 6, lines 32-37 of the specification also describe applying the embodiments to unchargeable toner particles.

Appellant establishes above that the specification includes a general written description of enhancing chargeability to impart a desired conductivity level greater than a particle's conductivity without ionomer. No basis exists for the Office's apparent assumption that the physical principles described in the specification would be any different for unchargeable particles than for the weakly chargeable particles used in Tables 3-5. Since the specification expressly encompasses using unchargeable particles, it follows that the descriptions of enhancing chargeability apply to such particles.

Consequently, Appellant asserts that the specification provides a written description of a chargeability enhancing ionomer coating on unchargeable particles. It also follows that those of ordinary skill would view the specification as providing a written description of increasing the conductivity of unchargeable particles to a level that exceeds the conductivity of the weakly chargeable particles in Tables 3-5. Specifically, the described coating increases the chargeability of the particles to greater than 7 pmho/cm, a conductivity level described in the specification for a particle without ionomer.

At least for such reasons, Appellant requests withdrawal of the rejection.

B. Rejection of claims 67 and 70 under 35 U.S.C. § 112, second paragraph.

Pages 2-3 of the Office Action explain the Office's reasoning for the allegation that the claims fail to comply with the written description requirement. All of the clearly identifiable reasons for the rejection are addressed below.

1. The specification supports an increase in chargeability with an "unbounded upper range."

Claims 67 and 70 set forth that the ionomer increases the chargeability of the toner particles by at least 15 pmho/cm. The Office Action alleges that "unbounded upper ranges for the increase in conductivity" are not supported. As may be appreciated from the discussion above, the specification supports a general teaching that increasing ionomer content produces increasing levels of particle conductivity. Although Tables 3 and 5 do not include data points for greater than 20% ionomer, those of ordinary skill would not find this to represent a maximum particle conductivity. As shown at least in Figure 3 and as represented by the additional data of the examples, those of ordinary skill would view the specification as providing a written description of higher conductivity levels for greater than 20% ionomer.

Additionally, Appellant notes that Tables 3-5 describe increases in particle conductivity of 15, 23, 79, 96, 112, 159, and 161, all of which are within the range of at least 15 pmho/cm.

Further, it is theoretically conceivable that an upper boundary for increases in particle conductivity might exist where an incrementally greater

amount of ionomer exhibits a diminishing return and more ionomer fails to produce the anticipated increase. However, such upper boundary would apparently vary depending on the several factors described in the specification and known in the art that influence conductivity. For example, the upper boundary for one combination of ionomer, particle, and charge director composition may differ significantly from the upper boundary for another combination of compositions. The data of Tables 3-5 clearly support such a conclusion.

The embodiments described in the specification are not limited to any particular upper boundary for an increase in particle conductivity. The Office's attempt to limit maximum particle conductivity increase deprives Appellant of invented subject matter described in the specification. No requirement exists for Appellant to identify all possible combinations of ionomer, particle, charge director, etc. compositions and determine which has the highest theoretical upper boundary for an increase in particle conductivity merely to state a bounded upper range in the claims. For all practical purposes, the specification provides a written description of an unbounded upper range for particle conductivity. Appellant asserts that those of ordinary skill would likewise view the specification as providing a written description of increasing chargeability by at least 15 pmho/cm.

At least for such reasons, Appellant requests withdrawal of the rejection.

2. The specification supports an increase in chargeability of at least 15 pmho/cm for unchargeable toner particles.

The Office Action alleges that “none of the changes in charges were relative to an unchargeable toner particle” and “[t]here is no basis for the newly presented range as being the increase in chargeability relative to an uncharged toner particle.” Appellant establishes above that the specification includes a written description of weakly chargeable particles having conductivities of 7 or less pmho/cm in Tables 3-5. Tables 3-5 describe increases in particle conductivity of 15, 23, 79, etc. pmho/cm for their weakly chargeable particles. An unchargeable toner particle has a conductivity of 0 pmho/cm, which is within the described range of conductivities of 7 or less pmho/cm. Page 2, lines 3-9 of the specification describes imparting chargeability to ordinarily unchargeable liquid toner particles. Pages 4-5 of the specification additionally describe various embodiments involving imparting enhanced chargeability to ordinarily unchargeable particles. Page 6, lines 32-37 of the specification also describe applying the embodiments to unchargeable toner particles.

Appellant establishes above that the specification includes a general written description of enhancing chargeability to impart a desired conductivity level greater than a particle's conductivity without ionomer. No basis exists for the Office's apparent assumption that the physical principles described in the specification would be any different for unchargeable particles than for the weakly chargeable particles used in Tables 3-5. Since the specification

expressly encompasses using unchargeable particles, it follows that the descriptions of enhancing chargeability apply to such particles.

Consequently, Appellant asserts that the specification provides a written description of a chargeability enhancing ionomer coating on unchargeable particles. It also follows that those of ordinary skill would view the specification as providing a written description of increasing the conductivity of unchargeable particles to a level that exceeds the conductivity of the weakly chargeable particles in Tables 3-5. Those of ordinary skill would further view the specification as providing a written description of increasing the conductivity of unchargeable particles by an amount that well exceeds the conductivity of the weakly chargeable particles. For example, the increase may be at least 15 pmho/cm, a range described in Tables 3-5.

At least for such reasons, Appellant requests withdrawal of the rejection.

C. Rejection of claim 68 and 71-74 under 35 U.S.C. § 103(a).

Pages 2-3 of the Office Action explain the Office's reasoning for the allegation that the claims fail to comply with the written description requirement. The only clearly identifiable reason for the rejection is addressed below.

1. The specification supports the claimed increases in chargeability for unchargeable toner particles.

Claims 68 and 71-74 set forth increasing the chargeability of the toner particles by 15 to 161, 15 to 161, 23 to 161, 23 to 96, and 79 to 161

pmho/cm, respectively. The Office Action alleges that "various ranges of conductivities are presented, but none of the changes in charges were relative to an unchargeable toner particle" and "[t]here is no basis for the newly presented range as being the increase in chargeability relative to an uncharged toner particle."

Appellant establishes above that the specification includes a written description of weakly chargeable particles having conductivities of 7 or less pmho/cm in Tables 3-5. Tables 3-5 describe increases in particle conductivity of 15, 23, 79, 96, 112, 159, and 161 pmho/cm for their weakly chargeable particles. An unchargeable toner particle has a conductivity of 0 pmho/cm, which is within the described range of conductivities of 7 or less pmho/cm. Page 2, lines 3-9 of the specification describes imparting chargeability to ordinarily unchargeable liquid toner particles. Pages 4-5 of the specification additionally describe various embodiments involving imparting enhanced chargeability to ordinarily unchargeable particles. Page 6, lines 32-37 of the specification also describe applying the embodiments to unchargeable toner particles.

Appellant establishes above that the specification includes a general written description of enhancing chargeability to impart a desired conductivity level greater than a particle's conductivity without ionomer. No basis exists for the Office's apparent assumption that the physical principles described in the specification would be any different for unchargeable particles than for the weakly chargeable particles used in Tables 3-5. Since the specification

expressly encompasses using unchargeable particles, it follows that the descriptions of enhancing chargeability apply to such particles.

Consequently, Appellant asserts that the specification provides a written description of a chargeability enhancing ionomer coating on unchargeable particles. It also follows that those of ordinary skill would view the specification as providing a written description of increasing the conductivity of unchargeable particles to a level that exceeds the conductivity of the weakly chargeable particles in Tables 3-5. Those of ordinary skill would further view the specification as providing a written description of increasing the conductivity of unchargeable particles by an amount that well exceeds the conductivity of the weakly chargeable particles. For example, the increase may be 15 to 161, 23 to 161, 23 to 96, or 79 to 161 pmho/cm, all of which constitute ranges described in Tables 3-5.

At least for such reasons, Appellant requests withdrawal of the rejection.

Appellant herein establishes adequate reasons supporting patentability of claims 47, 51-58, 63, and 65-74 and requests allowance of all pending claims.

Respectfully submitted,

Dated: August 11, 2009

By: /James E. Lake/
James E. Lake
Reg. No. 44,854

VIII. CLAIMS APPENDIX.

Claims 1-46 (cancelled).

47. (previously presented) An electrostatic imaging process comprising:

(A) forming a charged latent electrostatic image on a photo conductive surface; and

(B) applying to the photoconductive surface toner particles from a liquid toner, thereby forming an image, wherein the liquid toner comprises:

(a) an insulating non-polar carrier liquid;

(b) at least one charge director; and

(c) toner particles dispersed in the carrier liquid and the at least one charge director, the particles comprising:

(i) a core material comprising a pigmented polymer suitable for use as a toner material in an electrostatic image development application, which is unchargeable by the at least one charge director or which is weakly chargeable by the at least one charge director;

(ii) a coating of at least one ionomer component in an amount effective to impart an enhanced chargeability to the toner particles to an extent that the particles can be used to develop a latent electrostatic image in the electrostatic image development application; and

(iii) wherein the coating of the at least one ionomer increases the chargeability of the toner particles to greater than 7 pmho/cm.

Claims 48-50 (cancelled).

51. (previously presented) The electrostatic imaging process of Claim 47 wherein the at least one ionomer is carboxylic acid based and neutralized with metal salts forming ionic clusters.

52. (previously presented) The electrostatic imaging process of Claim 47 wherein the at least one ionomer is methacrylic acid based and neutralized with metal salts forming ionic clusters.

53. (previously presented) The electrostatic imaging process of Claim 47 wherein the at least one ionomer is sulfonic acid based and neutralized with metal salts forming ionic clusters.

54. (previously presented) The electrostatic imaging process of Claim 47 wherein the at least one ionomer is phosphoric acid based and neutralized with metal salts forming ionic clusters.

55. (previously presented) The electrostatic imaging process of Claim 47 wherein the at least one ionomer is ethlylene based and neutralized with metal salts forming ionic clusters.

56. (previously presented) The electrostatic imaging process of Claim 47 wherein the coating comprises less than 20 percent of the weight of the particles.

57. (previously presented) The electrostatic imaging process of Claim 47 wherein the coating comprises a thickness greater than or equal to a monolayer of the at least one ionomer.

58. (previously presented) The electrostatic imaging process of Claim 47 wherein the coating comprises a thickness of greater than 0.02 micrometers.

Claims 59-62 (cancelled).

63. (previously presented) Liquid toners for an electrostatic imaging, comprising:

(A) at least first and second liquid toners of first and second colors, wherein the first and the second liquid toners are configured with pigmented polymers having differently colored pigments and wherein each of the first and the second liquid toners comprises:

(a) an insulating non-polar carrier liquid;

(b) at least one charge director; and

(c) toner particles dispersed in the carrier liquid and the at least one charge director, the particles comprising:

(i) a core material comprising a pigmented polymer suitable for use as a toner material in an electrostatic image development application, which is unchargeable by the at least one charge director or which is weakly chargeable by the at least one charge director;

(ii) a coating of at least one ionomer component in an amount effective to impart an enhanced chargeability to the toner particles to an extent that the particles can be used to develop a latent electrostatic image in the electrostatic image development application;

(iii) wherein the coating of the at least one ionomer

added to toner particles in each of the first and the second liquid toners is sufficient to result in a same chargeability for toner particles within the first and the second liquid toners; and

(iv) wherein the coating of the at least one ionomer increases the chargeability of the toner particles to greater than 7 pmho/cm.

64. (cancelled).

65. (previously presented) The liquid toners of Claim 63, wherein imparting enhanced chargeability comprises enhancing the chargeability of the core material with the coating by an order of magnitude over chargeability of the core material without the coating.

66. (previously presented) The liquid toners of Claim 63, wherein the coating is used in an amount effective to reverse a polarity imparted on the toner particles by the charge director.

67. (previously presented) The liquid toners of Claim 63, wherein the coating of the at least one ionomer increases the chargeability of the toner particles by at least 15 pmho/cm.

68. (previously presented) The liquid toners of Claim 63, wherein the coating of the at least one ionomer increases the chargeability of the toner particles by 15 to 161 pmho/cm.

69. (previously presented) The electrostatic imaging process of Claim 47 wherein the coating is used in an amount effective to reverse a polarity imparted on the toner particles by the charge director.

70. (previously presented) The electrostatic imaging process of Claim 47 wherein the coating of the at least one ionomer increases the chargeability of the toner particles by at least 15 pmho/cm.

71. (previously presented) The electrostatic imaging process of Claim 47 wherein the coating of the at least one ionomer increases the chargeability of the toner particles by 15 to 161 pmho/cm.

72. (previously presented) The electrostatic imaging process of Claim 47 wherein the coating of the at least one ionomer increases the chargeability of the toner particles by 23 to 161 pmho/cm.

73. (previously presented) The electrostatic imaging process of Claim 69 wherein the coating of the at least one ionomer increases the chargeability of the toner particles by 23 to 96 pmho/cm.

74. (previously presented) The electrostatic imaging process of Claim 47 wherein the coating of the at least one ionomer increases the chargeability of the toner particles by 79 to 161 pmho/cm.

IX. EVIDENCE APPENDIX.

Not applicable.

X. RELATED PROCEEDINGS APPENDIX.

Not applicable.